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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,491	07/27/2001	Antonius H.J. Gerrits	4450G	9222

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FCI USA INC
INTELLECTUAL PROPERTY LAW DEPARTMENT
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EXAMINER

LEE, DIANE I

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 03/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/916,491

Examiner

D. I. Lee

Applicant(s)

GERRITS ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2002.
- 2a) ☒ This action is **FINAL**.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 46-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 46-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Receipt is acknowledged of the Amendment filed 20 February 2003. Claims 40-45 have been canceled, and claims 46-53 have been newly added. Currently, claims 46-53 are pending in this application.

Claim Objections

2. Claims 40, 42, and 44 are objected to because of the following informalities:
 - (a) Re claim 46, line 2: "rotating to an of" should be changed to --a rotating angle--; and
 - (b) Re claim 47, line 2: "rotating to an" should be changed to --a rotating--.Appropriate correction is required.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 46, 49, and 52 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 17-19 of U.S. Patent No. 6,058,018 (referred as Patent'018, cited by the applicant). Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 46-47 the instant application for example, applicants

claim an improvement of an electronic card assembly withstanding rotating of an angle of greater than approximately 10° or withstanding rotating of an angle of approximately 12° during a torque test which applies a torque of greater than approximately 1.2 N-m, respectively. Claim 17 of Patent'018 recites "when more than about 1.2 Nm is applied to said card in a torque test average rotation angle is less than about 12°", which is equivalent to the applicant's current claimed limitations. In view of above discussion, the claimed inventions are not patentably different between claims 46, 49, and 52 of the present application and claims 1 and 17-19 of Patent'018. Thus, in respect to above discussions, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to use the teachings of claims 1, 17-19 of Patent'018 as general teachings of mechanical or environmental test results for an electronic card as claimed by the present application. The instant claims obviously encompass the claimed invention of Patent'018.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Claims 49-53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) Re claim 49, line 2 reads, "electronic card assembly deflecting less than the PCMCIA standard during a PCMCIA bend test which applies a force of approximately 20N", it is unclear what is the PCMCIA standard value of the PCMCIA bend test when applied force is approximately 20N. Applicant has failed to point out the PCMCIA standard value of the PCMCIA bend test when applied force is approximately 20N in the claim.

(b) Re claim 52, line 2 reads, "card displacing less than the PCMCIA standard during a fingernail test which applies a force of more than approximately 100N", it is unclear what is the PCMCIA

standard during a fingernail test, which applies a force of more than approximately 100N. Applicant has failed to point out the PCMCIA standard during a fingernail test, which applies a force of more than approximately 100N in the claim.

Therefore, claims 49 and 52, and claims depend therefrom, claims 50-51 and 53, are vague and indefinite.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 46-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Persia et al. [US 5,574,628-referred as Persia] in view of Kilmer et al. [US 5,497,297, cited by the applicant].

Re claims 46-47, 49-50, 52: Persia discloses an electronic card 10 or a PCMCIA frame kit comprising a printed circuit board assembly 50 interposed between the metallic material of card shields 12, 14 (see figures 1-3).

Persia teaches the specific structure of the card assembly, i.e., the metallic material of card shields 12, 14 having edges wherein the tabs 24 on the edges of one shield 12 engage recesses 62 on the edge of the other shield 14 and each of the tabs comprises an arcuate member having an oblique projection 96 which engages the other shield, and the recess has angled ends 98 which engage the arcuate member of the tabs and wherein the tabs are resilient and act like springs over their entire lengths, provides a stable and rigid frame kit (see col. 2, lines 65+), and all structure of the card assembly yields some degrees of rotation, deflection, and displacement when a force is applied to the structure.

Although the metallic material of the electronic card shield with the specified structure of Persia obviously provides a finite measurable deformation (i.e., rotation, deflection, displacement) when it is subjected to a specific given force; Persia is silent with respect to the deformability of the card, i.e., rotation, deflection, and displacement of the card when a given force applied during a torque test, bend test, and fingernail test, respectively.

Kilmer teaches a PCMCIA or an electronic card assembly standard specification requires that the physical structure of the electronic card assembly must undergo and pass a number of stringent mechanical test such as a shock and vibration test, a bend test, a torque test, and etc. (see col. 1, lines 11+).

In view of Kilmer's teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to recognize that all electronic card assembly provides a finite measurable deformation data (i.e., measurement of the rotation, the deflection, the displacement) when it is subjected to a specific given force in order to meet the PCMCIA standard.

With respect to

providing a specific rotating angle of greater than approximately 10° or rotating angle of approximately 12° when a torque of greater than approximately 1.2 N-m is applied during a torque test,

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a deflection of less than approximately 3.5mm when a force of approximately 20N is applied during a bend test, and

a displacement of less than the PCMCIA standard when a force of approximately 100N is applied during a fingernail test;

it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the structure or material of the card shield to provide a specific strength test result, since it has been held that where the general conditions of a claim are disclosed in the prior art (i.e., different design structure of the shield and various manufacturing process with different material utilized in the shield provide different strength characteristics), discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Re claims 48, 51, and 53: Persia as modified by Kilmer does not specifically teach that the printed circuit board is not included during the deformation test.

Due to the fact that the electronic card assembly include a shield and a printed circuit board therein, it would have been obvious extension to an artisan of ordinary skill in the art at the time the invention was made to provide a deformation of the frame kit or shield with and without the electronic card assembly in order to obtain the exact deformation characteristic of the frame shield with and without the printed circuit board. Accordingly, measuring the deformation characteristic of the shield without the electronic card assembly during the shield deformation test would have been an obvious expedient.

Response to Arguments

10. Applicant's arguments filed 25 November 2002 have been fully considered but they are not persuasive.

Applicant argues that the card assembly capable of resisting test conditions well in excess of the standard PCMCIA test conditions, and that the cited prior art does not show the applicant's cited

limitation (see page 4, lines 10+). Since, Kilmer obviously teaches a PCMCIA or an electronic card assembly standard specification requires that the physical structure of the electronic card assembly must undergo and pass a number of stringent mechanical test such as a shock and vibration test, a bend test, a torque test, and etc. Thus, in view of Persia as modified by Kilmer's teaching, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to recognize that all electronic card assembly provides a finite measurable deformation data (i.e., measurement of the rotation, the deflection, the displacement) when it is subjected to a specific given force in order to meet the PCMCIA standard. With respect to providing a specific rotating angle of greater than approximately 10° or rotating angle of approximately 12° when a torque of greater than approximately 1.2 N-m is applied during a torque test, a deflection of less than approximately 3.5mm when a force of approximately 20N is applied during a bend test, and a displacement of less than the PCMCIA standard when a force of approximately 100N is applied during a fingernail test; it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the structure or material of the card shield to provide a specific strength test result, since it has been held that where the general conditions of a claim are disclosed in the prior art (i.e., different design structure of the shield and various manufacturing process with different material utilized in the shield provide different strength characteristics), discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Further, applicant stated that the applicant's electronic card assembly is far superior in physical properties to a conventional card, and that most skill in the art would design specifically toward the standard and a design that exceeds the standard would be unobvious; the examiner respectfully disagrees. The "standard" in a manufacturing process is an acceptable condition and/or measurement value set as a guideline, thus, the one skill in the art would design specifically toward beyond or exceed the standard value in order to pass the testing and/or functional requirement as well as to deliver a product with

physical properties that efficiently perform in their intended environment. Accordingly, a design that exceeds the standard would have been an obvious expedient.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Electronic Manufacturing Technology Symposium, 1995, [The basic processing parameters and reliability evaluation results for the new IC-Card packaging method by using transfer molding] teaches mechanical or environmental test result of an IC card packaging structure; and

IEEE Technical Applications Conference and Workshops Northcon95, Oct. 1995 [Packaging Guidelines for PC Cards] teaches a mechanical stress or an environment test result of an IC card packaging structure.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. I. Lee whose telephone number is 703-306-3427. The examiner can normally be reached on Monday through Thursday from 5:30 AM to 4:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 703-305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



D. I. Lee
Primary Examiner
Art Unit 2876

D. L.
February 20, 2003